

U.S. Patent Application Serial No. 10/506,671  
Amendment filed July 11, 2008  
Reply to OA dated April 17, 2008

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1           Claim 1 (currently amended): A pipe joint comprising  
2           a first and a second tubular joint member of synthetic resin,  
3           a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4 means for joining the joint members,  
5           the pipe joint being characterized in that the first joint member is provided in an abutting end  
6 face thereof with an annular recessed portion having an opening remaining therein with the gasket  
7 entirely fitted therein,  
8           the second joint member being provided with an annular ridge on an abutting end face  
9 thereof,  
10          the ridge being fitted in the opening of the recessed portion with the gasket fitted in the  
11 recessed portion,  
12          an outer surface of the ridge of the second joint member being pressed against an inner  
13 surface of the recessed portion of the first joint member with the gasket interposed between the  
14 surfaces in intimate contact therewith approximately over the entire surface areas when the pipe joint  
15 is properly tightened up,

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16 a portion of the abutting end face of the first joint member positioned radially inwardly of  
17 the recessed portion being then in intimate contact with a portion of the abutting end face of the  
18 second joint member positioned radially inwardly of the ridge approximately over the entire surface  
19 areas thereof,

20 a portion of the abutting end face of the first joint member positioned radially outwardly of  
21 the recessed portion being then in intimate contact with a portion of the abutting end face of the  
22 second joint member positioned radially outwardly of the ridge approximately over the entire surface  
23 areas thereof,

24 wherein when the pipe joint is manually tightened up, a first gap is present between the  
25 portion of the abutting end face of the first joint member positioned radially inwardly of the recessed  
26 portion and the portion of the abutting end face of the second joint member positioned radially  
27 inwardly of the ridge, and a second gap greater than the first gap is present between the portion of  
28 the abutting end face of the first joint member positioned radially outwardly of the recessed portion  
29 and the portion of the abutting end face of the second joint member positioned radially outwardly  
30 of the ridge,

31 wherein each of the joint members is provided at the abutting end face thereof with a flange  
32 portion, and the screw means comprises an annular male screw member having a forward end face  
33 in bearing contact with the flange portion of one of the joint members, and a cap nut fitted around  
34 the other joint member and having a top wall in bearing contact with the flange portion of said other  
35 joint member, the cap nut being screwed on the male screw member, wherein

36           an annular clearance is formed inside the cap nut around the flange portions of the joint  
37           members and has an annular spacer disposed therein, and at least one of a space between the cap nut  
38           top wall and the spacer and a space between the male screw member and the spacer has provided  
39           therein a biasing member for biasing one of the joint members toward the other joint member.

1           Claim 2 (currently amended): A pipe joint comprising  
2           a first and a second tubular joint member of synthetic resin, and screw means for joining the  
3           joint members,

4           the pipe joint being characterized in that the first joint member is provided with an annular  
5           recessed portion formed between a portion of an abutting end face positioned radially inwardly and  
6           a portion of the abutting end face positioned radially outwardly,

7           the second joint member being provided with an annular ridge on an abutting end face  
8           thereof,

9           the ridge of the second joint member being fitted in the recessed portion of the first joint  
10          member, with an outer surface of the ridge in intimate contact with an inner surface of the recessed  
11          portion approximately over the entire surface areas when the pipe joint is properly tightened up,

12          the portion of the abutting end face of the first joint member positioned radially inwardly of  
13          the recessed portion being then in intimate contact with a portion of the abutting end face of the  
14          second joint member positioned radially inwardly of the ridge approximately over the entire surface  
15          areas thereof,

16 the portion of the abutting end face of the first joint member positioned radially outwardly  
17 of the recessed portion being then in intimate contact with a portion of the abutting end face of the  
18 second joint member positioned radially outwardly of the ridge approximately over the entire surface  
19 areas thereof,

20 wherein when the pipe joint is manually tightened up, a first gap is present between the  
21 portion of the abutting end face of the first joint member positioned radially inwardly of the recessed  
22 portion and the portion of the abutting end face of the second joint member positioned radially  
23 inwardly of the ridge, and a second gap greater than the first gap is present between the portion of  
24 the abutting end face of the first joint member positioned radially outwardly of the recessed portion  
25 and the portion of the abutting end face of the second joint member positioned radially outwardly  
26 of the ridge,

27 wherein each of the joint members is provided at the abutting end face thereof with a flange  
28 portion, and the screw means comprises an annular male screw member having a forward end face  
29 in bearing contact with the flange portion of one of the joint members, and a cap nut fitted around  
30 the other joint member and having a top wall in bearing contact with the flange portion of said other  
31 joint member, the cap nut being screwed on the male screw member, wherein

32 an annular clearance is formed inside the cap nut around the flange portions of the joint  
33 members and has an annular spacer disposed therein, and at least one of a space between the cap nut  
34 top wall and the spacer and a space between the male screw member and the spacer has provided  
35 therein a biasing member for biasing one of the joint members toward the other joint member.

1           Claim 3 (currently amended): A pipe joint comprising  
2           a first and a second tubular joint member of synthetic resin,  
3           a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4 means for joining the joint members,  
5           the pipe joint being characterized in that each of the joint members is provided in an abutting  
6 end face thereof with an annular recessed portion for forming a portion for accommodating the  
7 gasket therein when the joint members are butted against each other,  
8           the gasket being in intimate contact with an inner surface of the recessed portion of the first  
9 joint member approximately over the entire area thereof when the pipe joint is properly tightened  
10 up,  
11           a surface portion of the gasket exposed from the same recessed portion being then in intimate  
12 contact with an inner surface of the recessed portion of the second joint member approximately over  
13 the entire area thereof,  
14           a portion of the abutting end face of the first joint member positioned radially inwardly of  
15 the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
16 the second joint member positioned radially inwardly of the recessed portion thereof approximately  
17 over the entire surface areas thereof,  
18           a portion of the abutting end face of the first joint member positioned radially outwardly of  
19 the recessed portion thereof being then in intimate contact with a portion of the abutting end face of

20 the second joint member positioned radially outwardly of the recessed portion thereof approximately  
21 over the entire surface areas thereof,

22 wherein when the pipe joint is manually tightened up, a first gap is present between the  
23 portion of the abutting end face of the first joint member positioned radially inwardly of the recessed  
24 portion thereof and the portion of the abutting end face of the second joint member positioned  
25 radially inwardly of the recessed portion thereof, and a second gap greater than the first gap is  
26 present between the portion of the abutting end face of the first joint member positioned radially  
27 outwardly of the recessed portion thereof and the portion of the abutting end face of the second joint  
28 member positioned radially outwardly of the recessed portion thereof,

29 wherein each of the joint members is provided at the abutting end face thereof with a flange  
30 portion, and the screw means comprises an annular male screw member having a forward end face  
31 in bearing contact with the flange portion of one of the joint members, and a cap nut fitted around  
32 the other joint member and having a top wall in bearing contact with the flange portion of said other  
33 joint member, the cap nut being screwed on the male screw member, wherein

34 an annular clearance is formed inside the cap nut around the flange portions of the joint  
35 members and has an annular spacer disposed therein, and at least one of a space between the cap nut  
36 top wall and the spacer and a space between the male screw member and the spacer has provided  
37 therein a biasing member for biasing one of the joint members toward the other joint member.

1           Claim 4 (previously presented):       A pipe joint comprising  
2           a first and a second tubular joint member of synthetic resin,  
3           a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4 means for joining the joint members,  
5           the pipe joint being characterized in that each of the joint members is provided in an abutting  
6 end face thereof with an annular recessed portion for forming a portion for accommodating the  
7 gasket therein when the joint members are butted against each other,  
8           the gasket being in intimate contact with an inner surface of the recessed portion of the first  
9 joint member approximately over the entire area thereof when the pipe joint is properly tightened  
10 up,  
11          a surface portion of the gasket exposed from the same recessed portion being then in intimate  
12 contact with an inner surface of the recessed portion of the second joint member approximately over  
13 the entire area thereof,  
14          a portion of the abutting end face of the first joint member positioned radially inwardly of  
15 the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
16 the second joint member positioned radially inwardly of the recessed portion thereof approximately  
17 over the entire surface areas thereof,  
18          a portion of the abutting end face of the first joint member positioned radially outwardly of  
19 the recessed portion thereof being then in intimate contact with a portion of the abutting end face of



20 the second joint member positioned radially outwardly of the recessed portion thereof approximately  
21 over the entire surface areas thereof,

22 characterized in that the portion of the abutting end face of the first joint member positioned  
23 radially inwardly of the recessed portion thereof axially projects beyond the radially outward portion  
24 thereof,

25 the portion of the abutting end face of the second joint member radially inward of the  
26 recessed portion thereof axially projecting beyond the radially outward portion thereof.

1 Claim 5 (previously presented): A pipe joint comprising  
2 a first and a second tubular joint member of synthetic resin,  
3 a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4 means for joining the joint members,

5 the pipe joint being characterized in that each of the joint members is provided in an abutting  
6 end face thereof with an annular recessed portion for forming a portion for accommodating the  
7 gasket therein when the joint members are butted against each other,

8 the gasket being in intimate contact with an inner surface of the recessed portion of the first  
9 joint member approximately over the entire area thereof when the pipe joint is properly tightened  
10 up,



11           a surface portion of the gasket exposed from the same recessed portion being then in intimate  
12           contact with an inner surface of the recessed portion of the second joint member approximately over  
13           the entire area thereof,

14           a portion of the abutting end face of the first joint member positioned radially inwardly of  
15           the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
16           the second joint member positioned radially inwardly of the recessed portion thereof approximately  
17           over the entire surface areas thereof,

18           a portion of the abutting end face of the first joint member positioned radially outwardly of  
19           the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
20           the second joint member positioned radially outwardly of the recessed portion thereof approximately  
21           over the entire surface areas thereof,

22           characterized in that the portion of the abutting end face of the first joint member positioned  
23           radially inwardly of the recessed portion thereof being flush with the bottom surface of the recessed  
24           portion thereof,

25           the radially outward portion of the first joint member axially projecting beyond the bottom  
26           surface of the recessed portion thereof,

27           the portion of the abutting end face of the second joint member radially inward of the  
28           recessed portion thereof axially projecting beyond the bottom surface of the recessed portion thereof,

29           the radially outward portion of the second joint member being axially recessed from the  
30           bottom surface of the recessed portion thereof.

1           Claim 6 (previously presented): A pipe joint comprising  
2           a first and a second tubular joint member of synthetic resin,  
3           a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4           means for joining the joint members,

5           the pipe joint being characterized in that each of the joint members is provided in an abutting  
6           end face thereof with an annular recessed portion for forming a portion for accommodating the  
7           gasket therein when the joint members are butted against each other, the gasket being in intimate  
8           contact with an inner surface of the recessed portion of the first joint member approximately over  
9           the entire area thereof when the pipe joint is properly tightened up,

10          a surface portion of the gasket exposed from the same recessed portion being then in intimate  
11          contact with an inner surface of the recessed portion of the second joint member approximately over  
12          the entire area thereof,

13          a portion of the abutting end face of the first joint member positioned radially inwardly of  
14          the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
15          the second joint member positioned radially inwardly of the recessed portion thereof approximately  
16          over the entire surface areas thereof,

17          a portion of the abutting end face of the first joint member positioned radially outwardly of  
18          the recessed portion thereof being then in intimate contact with a portion of the abutting end face of

19 the second joint member positioned radially outwardly of the recessed portion thereof approximately  
20 over the entire surface areas thereof,

21 characterized in that the portion of the abutting end face of the first joint member positioned  
22 radially inwardly of the recessed portion thereof is recessed from the bottom surface of the recessed  
23 portion thereof,

24 the radially outward portion of the first joint member axially projecting beyond the bottom  
25 surface of the recessed portion thereof,

26 the portion of the abutting end face of the second joint member radially inward of the  
27 recessed portion thereof axially projecting beyond the bottom surface of the recessed portion thereof,

28 the radially outward portion of the second joint member being axially recessed from the  
29 bottom surface of the recessed portion thereof.

Claim 7 (canceled).

1 Claim 8 (previously presented): A pipe joint according to any one of claims 4 to 6 wherein  
2 when the pipe joint is manually tightened up, a first gap is present between the portion of the  
3 abutting end face of the first joint member positioned radially inwardly of the recessed portion  
4 thereof and the portion of the abutting end face of the second joint member positioned radially  
5 inwardly of the recessed portion thereof, and a second gap greater than the first gap is present  
6 between the portion of the abutting end face of the first joint member positioned radially outwardly

7 of the recessed portion thereof and the portion of the abutting end face of the second joint member  
8 positioned radially outwardly of the recessed portion thereof.

1 Claim 9 (previously presented): A pipe joint according to any one of claims 4 to 6 wherein  
2 each of the joint members is provided at the abutting end face thereof with a flange portion, and the  
3 screw means comprises an annular male screw member having a forward end face in bearing contact  
4 with the flange portion of one of the joint members, and a cap nut fitted around the other joint  
5 member and having a top wall in bearing contact with the flange portion of said other joint member,  
6 the cap nut being screwed on the male screw member.

1 Claim 10 (previously presented): A pipe joint according to claim 9 wherein  
2 at least one of a space between the male screw member and the flange portion of said one  
3 joint member and a space between the top wall of the cap nut and the flange portion of said other  
4 joint member has disposed therein a biasing member for biasing one of the joint members toward  
5 the other joint member.

1 Claim 11 (original): A pipe joint according to claim 9 wherein  
2 an annular clearance is formed inside the cap nut around the flange portions of the joint  
3 members and has an annular spacer disposed therein, and at least one of a space between the cap nut

4 top wall and the spacer and a space between the male screw member and the spacer has provided  
5 therein a biasing member for biasing one of the joint members toward the other joint member.

1 Claim 12 (original): A pipe joint according to claim 9 wherein  
2 a synthetic resin thrust ring is interposed between the cap nut top wall and the flange portion  
3 of the joint member.

1 Claim 13 (original): A pipe joint according to claim 12 wherein  
2 the thrust ring has an outside diameter larger than the inside diameter of the cap nut, and the  
3 cap nut has an annular recess formed in an inner periphery thereof for accommodating an outer  
4 peripheral edge of the thrust ring.

1 Claim 14 (currently amended): A pipe joint comprising  
2 a first and a second tubular joint member of synthetic resin,  
3 a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4 means for joining the joint members,  
5 the pipe joint being characterized in that the first joint member is provided in an abutting end  
6 face thereof with an annular recessed portion having an opening remaining therein with the gasket  
7 entirely fitted therein,

8           the second joint member being provided with an annular ridge on an abutting end face  
9 thereof,

10           the ridge being fitted in the opening of the recessed portion with the gasket fitted in the  
11 recessed portion,

12           an outer surface of the ridge of the second joint member being pressed against an inner  
13 surface of the recessed portion of the first joint member with the gasket interposed between the  
14 surfaces in intimate contact therewith approximately over the entire surface areas when the pipe joint  
15 is properly tightened up,

16           a portion of the abutting end face of the first joint member positioned radially inwardly of  
17 the recessed portion being then in intimate contact with a portion of the abutting end face of the  
18 second joint member positioned radially inwardly of the ridge approximately over the entire surface  
19 areas thereof,

20           a portion of the abutting end face of the first joint member positioned radially outwardly of  
21 the recessed portion being then in intimate contact with a portion of the abutting end face of the  
22 second joint member positioned radially outwardly of the ridge approximately over the entire surface  
23 areas thereof,

24           wherein each of the joint members is provided at the abutting end face thereof with a flange  
25 portion, and

26           the screw means comprises an annular male screw member having a forward end face in  
27 bearing contact with the flange portion of one of the joint members, and a cap nut fitted around the

28 other joint member and having a top wall in bearing contact with the flange portion of said other  
29 joint member,  
30 the cap nut being screwed on the male screw member, wherein  
31 an annular clearance is formed inside the cap nut around the flange portions of the joint  
32 members and has an annular spacer disposed therein, and at least one of a space between the cap nut  
33 top wall and the spacer and a space between the male screw member and the spacer has provided  
34 therein a biasing member for biasing one of the joint members toward the other joint member.

1 Claim 15 (previously presented): A pipe joint according to one of claims 1 to 3 wherein  
2 at least one of a space between the male screw member and the flange portion of said one  
3 joint member and a space between the top wall of the cap nut and the flange portion of said other  
4 joint member has disposed therein a biasing member for biasing one of the joint members toward  
5 the other joint member.

Claims 16-18 (canceled).

1 Claim 19 (new): A pipe joint comprising  
2 a first and a second tubular joint member of synthetic resin,  
3 a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4 means for joining the joint members,



5           the pipe joint being characterized in that the first joint member is provided in an abutting end  
6           face thereof with an annular recessed portion having an opening remaining therein with the gasket  
7           entirely fitted therein,

8           the second joint member being provided with an annular ridge on an abutting end face  
9           thereof,

10          the ridge being fitted in the opening of the recessed portion with the gasket fitted in the  
11          recessed portion,

12          an outer surface of the ridge of the second joint member being pressed against an inner  
13          surface of the recessed portion of the first joint member with the gasket interposed between the  
14          surfaces in intimate contact therewith approximately over the entire surface areas when the pipe joint  
15          is properly tightened up,

16          a portion of the abutting end face of the first joint member positioned radially inwardly of  
17          the recessed portion being then in intimate contact with a portion of the abutting end face of the  
18          second joint member positioned radially inwardly of the ridge approximately over the entire surface  
19          areas thereof,

20          a portion of the abutting end face of the first joint member positioned radially outwardly of  
21          the recessed portion being then in intimate contact with a portion of the abutting end face of the  
22          second joint member positioned radially outwardly of the ridge approximately over the entire surface  
23          areas thereof,

24 wherein when the pipe joint is manually tightened up, a first gap is present between the  
25 portion of the abutting end face of the first joint member positioned radially inwardly of the recessed  
26 portion and the portion of the abutting end face of the second joint member positioned radially  
27 inwardly of the ridge, and a second gap greater than the first gap is present between the portion of  
28 the abutting end face of the first joint member positioned radially outwardly of the recessed portion  
29 and the portion of the abutting end face of the second joint member positioned radially outwardly  
30 of the ridge,

31 wherein each of the joint members is provided at the abutting end face thereof with a flange  
32 portion, and the screw means comprises an annular male screw member having a forward end face  
33 in bearing contact with the flange portion of one of the joint members, and a cap nut fitted around  
34 the other joint member and having a top wall in bearing contact with the flange portion of said other  
35 joint member, the cap nut being screwed on the male screw member, wherein

36 a synthetic resin thrust ring is interposed between the cap nut top wall and the flange portion  
37 of the joint member, wherein

38 the thrust ring has an outside diameter larger than the inside diameter of the cap nut, and the  
39 cap nut has an annular recess formed in an inner periphery thereof for accommodating an outer  
40 peripheral edge of the thrust ring.

1           Claim 20 (new): A pipe joint comprising  
2           a first and a second tubular joint member of synthetic resin, and screw means for joining the  
3 joint members,  
4           the pipe joint being characterized in that the first joint member is provided with an annular  
5 recessed portion formed between a portion of an abutting end face positioned radially inwardly and  
6 a portion of the abutting end face positioned radially outwardly,  
7           the second joint member being provided with an annular ridge on an abutting end face  
8 thereof,  
9           the ridge of the second joint member being fitted in the recessed portion of the first joint  
10 member, with an outer surface of the ridge in intimate contact with an inner surface of the recessed  
11 portion approximately over the entire surface areas when the pipe joint is properly tightened up,  
12           the portion of the abutting end face of the first joint member positioned radially inwardly of  
13 the recessed portion being then in intimate contact with a portion of the abutting end face of the  
14 second joint member positioned radially inwardly of the ridge approximately over the entire surface  
15 areas thereof,  
16           the portion of the abutting end face of the first joint member positioned radially outwardly  
17 of the recessed portion being then in intimate contact with a portion of the abutting end face of the  
18 second joint member positioned radially outwardly of the ridge approximately over the entire surface  
19 areas thereof,

20 wherein when the pipe joint is manually tightened up, a first gap is present between the  
21 portion of the abutting end face of the first joint member positioned radially inwardly of the recessed  
22 portion and the portion of the abutting end face of the second joint member positioned radially  
23 inwardly of the ridge, and a second gap greater than the first gap is present between the portion of  
24 the abutting end face of the first joint member positioned radially outwardly of the recessed portion  
25 and the portion of the abutting end face of the second joint member positioned radially outwardly  
26 of the ridge,

27 wherein each of the joint members is provided at the abutting end face thereof with a flange  
28 portion, and the screw means comprises an annular male screw member having a forward end face  
29 in bearing contact with the flange portion of one of the joint members, and a cap nut fitted around  
30 the other joint member and having a top wall in bearing contact with the flange portion of said other  
31 joint member, the cap nut being screwed on the male screw member, wherein

32 a synthetic resin thrust ring is interposed between the cap nut top wall and the flange portion  
33 of the joint member, wherein

34 the thrust ring has an outside diameter larger than the inside diameter of the cap nut, and the  
35 cap nut has an annular recess formed in an inner periphery thereof for accommodating an outer  
36 peripheral edge of the thrust ring.

1 Claim 21 (new): A pipe joint comprising  
2 a first and a second tubular joint member of synthetic resin,

3           a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4           means for joining the joint members,

5           the pipe joint being characterized in that each of the joint members is provided in an abutting  
6           end face thereof with an annular recessed portion for forming a portion for accommodating the  
7           gasket therein when the joint members are butted against each other,

8           the gasket being in intimate contact with an inner surface of the recessed portion of the first  
9           joint member approximately over the entire area thereof when the pipe joint is properly tightened  
10          up,

11          a surface portion of the gasket exposed from the same recessed portion being then in intimate  
12          contact with an inner surface of the recessed portion of the second joint member approximately over  
13          the entire area thereof,

14          a portion of the abutting end face of the first joint member positioned radially inwardly of  
15          the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
16          the second joint member positioned radially inwardly of the recessed portion thereof approximately  
17          over the entire surface areas thereof,

18          a portion of the abutting end face of the first joint member positioned radially outwardly of  
19          the recessed portion thereof being then in intimate contact with a portion of the abutting end face of  
20          the second joint member positioned radially outwardly of the recessed portion thereof approximately  
21          over the entire surface areas thereof,

22 wherein when the pipe joint is manually tightened up, a first gap is present between the  
23 portion of the abutting end face of the first joint member positioned radially inwardly of the recessed  
24 portion thereof and the portion of the abutting end face of the second joint member positioned  
25 radially inwardly of the recessed portion thereof, and a second gap greater than the first gap is  
26 present between the portion of the abutting end face of the first joint member positioned radially  
27 outwardly of the recessed portion thereof and the portion of the abutting end face of the second joint  
28 member positioned radially outwardly of the recessed portion thereof,

29 wherein each of the joint members is provided at the abutting end face thereof with a flange  
30 portion, and the screw means comprises an annular male screw member having a forward end face  
31 in bearing contact with the flange portion of one of the joint members, and a cap nut fitted around  
32 the other joint member and having a top wall in bearing contact with the flange portion of said other  
33 joint member, the cap nut being screwed on the male screw member, wherein

34 a synthetic resin thrust ring is interposed between the cap nut top wall and the flange portion  
35 of the joint member, wherein

36 the thrust ring has an outside diameter larger than the inside diameter of the cap nut, and the  
37 cap nut has an annular recess formed in an inner periphery thereof for accommodating an outer  
38 peripheral edge of the thrust ring.

1 Claim 22 (new): A pipe joint comprising

2 a first and a second tubular joint member of synthetic resin,

3           a synthetic resin gasket interposed between abutting portions of the joint members and screw  
4           means for joining the joint members,

5           the pipe joint being characterized in that the first joint member is provided in an abutting end  
6           face thereof with an annular recessed portion having an opening remaining therein with the gasket  
7           entirely fitted therein,

8           the second joint member being provided with an annular ridge on an abutting end face  
9           thereof,

10          the ridge being fitted in the opening of the recessed portion with the gasket fitted in the  
11          recessed portion,

12          an outer surface of the ridge of the second joint member being pressed against an inner  
13          surface of the recessed portion of the first joint member with the gasket interposed between the  
14          surfaces in intimate contact therewith approximately over the entire surface areas when the pipe joint  
15          is properly tightened up,

16          a portion of the abutting end face of the first joint member positioned radially inwardly of  
17          the recessed portion being then in intimate contact with a portion of the abutting end face of the  
18          second joint member positioned radially inwardly of the ridge approximately over the entire surface  
19          areas thereof,

20          a portion of the abutting end face of the first joint member positioned radially outwardly of  
21          the recessed portion being then in intimate contact with a portion of the abutting end face of the



22 second joint member positioned radially outwardly of the ridge approximately over the entire surface  
23 areas thereof,

24 wherein each of the joint members is provided at the abutting end face thereof with a flange  
25 portion, and

26 the screw means comprises an annular male screw member having a forward end face in  
27 bearing contact with the flange portion of one of the joint members, and a cap nut fitted around the  
28 other joint member and having a top wall in bearing contact with the flange portion of said other  
29 joint member,

30 the cap nut being screwed on the male screw member, wherein

31 a synthetic resin thrust ring is interposed between the cap nut top wall and the flange portion  
32 of the joint member, wherein

33 the thrust ring has an outside diameter larger than the inside diameter of the cap nut, and the  
34 cap nut has an annular recess formed in an inner periphery thereof for accommodating an outer  
35 peripheral edge of the thrust ring.

\* \* \* \*